
An International Study on Principal Influence and Information Services in Schools: Synergy in Themes and Methods

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Support of the principal is a key factor in the implementation of effective programs in schools. An international study of the principal's role in developing and supporting school library programs was conducted in Australia, Canada, Finland, France, Japan, Scotland, and South Korea. The purpose of the study was to provide information, for principals and teacher-librarians in countries throughout the world that might inform their efforts to develop information-literate school communities. Principals and teacher-librarians completed three survey instruments: (a) participant demographics; (b) the participants' perceptions and beliefs about the principals' current and future roles; and (c) the participants' views on such concerns as the strengths and challenges of the school library, the contributions of teacher-librarians to teaching and learning, the nature of information literacy, and barriers to integration of information skills. The overall findings of the research project included the following: (a) principals and teacher-librarians differed in age and gender; (b) beliefs of principals and teacher-librarians about the role of the principal were well aligned except where librarians were not also qualified teachers; (c) principals and teacher-librarians differed most on their current and future perceptions of the role of the principal in advocating and facilitating the development of an information-literate school community; and (d) principals and teacher-librarians agreed that principals should spend more time informing new teaching staff about the importance of collaboration with the teacher-librarian.

Roots of the International Study

The study was based on some key basic assumptions about the nature of school library programs, the role of school librarians, the goals of school library programs, and the future of school libraries. The Australian and Canadian researchers began from a belief that school library programs involve a bundle of innovations that can be difficult to implement, because they require changes not only in how teaching and learning occurs in the library. School library programs that support student learning and that facilitate good teaching practice require many changes outside the specific domain of the school library. For example, teachers need to work with other teachers, to use multiple resources, and to involve their students in designing and evaluating learning projects. A whole-school approach is needed to

implement a successful school library program. The school librarian has a critical role to play, but he or she can only do this with whole-school support and, in particular, with the support of the principal.

The Australian and Canadian researchers had been studying the role of the principal in relation to school library programs in their own countries. The roots of the international study can be traced to the network of school library researchers and professionals brought together by the conferences of the International Association of School Librarianship (IASL) and the International Federation of Library Associations and Institutions (IFLA). The design of the international study was based on the insights gained by the Australian and Canadian researchers from their studies, using qualitative methods, of principal and teacher-librarian collaboration (see, e.g., Henri & Hay, 1996; LaRocque & Oberg, 1991; Oberg, 1991). These studies found that principal support involved: understanding and believing in the collaborative library or information literacy program; recognizing the importance of the teacher-librarian; ensuring collaborative planning time and other program resources; providing appropriate staff development; and monitoring implementation of the collaborative school library program. Two underlying patterns pervaded these aspects of principal support: expressing commitment to the school library program and integrating the program into the general program of the school. These themes and patterns helped to explain how principals in schools with exemplary library or information literacy programs act to build collaboration between teachers and teacher-librarians (Oberg, 1997).

The International Study of Principal and Teacher-Librarian Collaboration

Hay and Henri proposed the international study, based on the data from the original qualitative studies, which would use questionnaires to survey both principals and teacher-librarians about the nature of principal support. Involvement of other countries in this study began with the presentation of a paper (Hay & Henri, 1995) on the Australian study at the 1995 IFLA conference. Based on expressions of interest at that conference, Hay and Henri applied for research funding from the International Federation of Library Associations and Institutions (IFLA), and Oberg applied to the International Association of School Librarianship (IASL). They were successful in obtaining research funding, and in 1996 they began the preparations for conducting the international study.

Commitments were secured for the study to be carried out in seven countries: Australia, Canada, Scotland, Finland, France, Japan, and South Korea. For the 1997 IFLA conference in Copenhagen, Denmark, Hay, Henri, and Oberg organized a full-day workshop and planning meeting for those interested in conducting the research in their countries. An International Research Reference Group (IRRG) was established, representing the seven countries involved in this international study (see Table 1). The roles of the

Table 1
International Research Reference Group*

Australia	James Henri Lyn Hay	Senior Lecturer Lecturer, School of Information Studies, Charles Sturt University, Wagga Wagga
Canada	Dianne Oberg	Associate Professor, School of Library and Information Studies, University of Alberta, Edmonton
Finland	Liisa Niinikangas	Information Specialist and Partner, Lighthouse Consulting, Tampere
France	Colette Charrier	President of FADBEN and Teacher-librarian, Lycée Guez de Balzac, Angoul, 136me
Japan	Setsuko Koga	Professor, Department of Education, Aoyama Gakuin University, Shibuyaku
Scotland	James Herring	Head of School (Acting), Department of Communication and Information Studies, Queen Margaret College, Aberdeen
South Korea	Yoon Ok Han	Professor, Department of Library and Information Science, Kyonggi do University, Suwon-City

*Note: Titles and affiliations in 1998.

IRRG group members were: (a) to provide input and advice regarding the adaptation and translation of the quantitative and qualitative instruments for each country involved in the research; and (b) to plan and administer the procedures for data collection, analysis, and reporting of findings for each country.

Research Methodology for the International Study

Design of the Instruments

Questionnaires, based on the key factors resulting from the original qualitative studies, were developed and piloted in Australia. Two questionnaire sets—one for principals and one for teacher-librarians—were developed. The three instruments in each of the questionnaire sets included both closed-choice and open-ended questions.

Instrument 1 was designed to identify demographic variables, including the personal and professional characteristics of the principals and teacher-librarians and the characteristics of individual schools. Instrument 2 was designed to identify the level of principal support for the school library program and for the teacher-librarian. Instrument 2 was divided into two parts: Part A, Perception Factors, and Part B, Belief Factors. In Part A, principals and teacher-librarians first rated the level of attention they perceived the principal to give each item or task at present using the rating scale, A Lot—Some—Little—None or Cannot Comment. Then they rated (using the same scale) the level of attention they would like to see the principal give

each item or task in the future. In Part B, principals and teacher-librarians were asked to indicate the strength of their views on each of the items or beliefs using the scale, Strongly Agree—Agree—Disagree—Strongly Disagree—Cannot Comment. The belief statements were designed to indicate the strength of principal and teacher-librarian beliefs and the alignment between principal and teacher-librarian beliefs about the role of the principal in developing and supporting an information-literate school community. Instrument 3 was composed of open-ended questions related to the strengths and challenges of the school library, the contributions of teacher-librarians to teaching and learning, the nature of information literacy, barriers to integration of information skills, the promotion of the school library, and the respondents' roles in developing and supporting an information-literate school community. Teacher-librarians were asked two extra questions related to how they maintained their credibility as teacher-librarians and how their principals could provide them with additional support.

Data Collection and Analysis

Each IRRG member was responsible for the collection of data in his or her country and for the entry of those data via the World Wide Web into a database at the School of Information Studies, Charles Sturt University (CSU). The quantitative data from the CSU website was analyzed using the SPSS software program by Hay and Henri at CSU. Frequency analysis was used to get an overall picture of the data, and *t*-tests were used to check for significant differences between the responses of principals and teacher-librarians. The qualitative data from the open-ended questions was analyzed using a framework and content analysis procedures developed by Oberg at the University of Alberta. The NUDIST*QSR software program, designed for use with textual qualitative data, was used to gather together all the responses to each open-ended question from all the principals in each country and all the teacher-librarians in each country.

Each member of the IRRG was responsible for compiling a report, based on findings from both qualitative and quantitative data analysis, for his or her own country. This article presents a summary of the methodology, parameters, contexts, and findings of the international study. Readers wishing more detail on any aspects of the study are invited to consult more extensive reports of the study (Oberg, Hay, & Henri, 2000a, 2000b) and a forthcoming IFLA Professional Report on the study.

Because of the international context of this research, the authors have chosen to use the terminology most frequently used in the participating countries and in the research instruments used for the study, that is, *principal*, *teacher-librarian*, and *school library*. However, where appropriate, other local terminology has been used for direct quotes and in reference to specific local contexts.

Findings From the International Research Project

Parameters and Contexts of the Studies in the Participating Countries

The findings of the international study need to be considered with care and caution, because the parameters and contexts of the study varied greatly among the participating countries. The researchers in each country defined the parameters of the study in their country in the way most appropriate to their local contexts. There were no attempts at countrywide surveys. In several cases, the study had to take into account the fact that not all schools in the country or in the region that could be selected for the study had teacher-librarians. In other cases, only secondary schools could be included in the study because elementary schools did not have teacher-librarians. In Australia and Canada, the studies were conducted in elementary and secondary public and Catholic schools. Each school in the Australian study had a teacher-librarian and a full-time principal; each school in the Canadian study had at least a half-time teacher-librarian and a full-time principal. In Finland, Scotland, France, South Korea, and Japan, the studies were conducted in secondary public schools. Most of the schools in the Finland study had a part-time teacher-librarian. Each school in the studies in Scotland, South Korea, and Japan had a full-time teacher-librarian.

Among the seven countries involved in the research project, there were great variances in educational systems and in provision for, and staffing of, school libraries. In Japan and Korea, public education is organized at the national level and administered in an hierarchical fashion. In Australia, Canada, Scotland, and Finland, the trend is to increasing decentralization of educational decision-making. Readers need to keep these differences in mind in looking at the findings from the individual countries and the findings of the cross-country comparisons. The researchers in France completed their own data analysis and reported overall findings at the 1998 IFLA conference. However, the data analysis from the French study is not yet available in English, and therefore could not be included in this article. The survey response rates for the other six countries are presented in Table 2.

Cross-Country Comparisons of Demographic Data

Instrument 1 (see Appendixes A and B) gathered demographic data about the participants and their schools. In all the countries in the research project, most of the principal participants were male, and most of the teacher-librarian participants were female (see Table 3). In all the countries in the research project, most principals were older than most teacher-librarians. Most principals were in their 50s, whereas most teacher-librarians were in their 40s (see Table 4). Because these figures were in no case derived from a countrywide survey, they should not be regarded as representative of the country as a whole.

Table 2
Survey Response Rate

Country	Schools Surveyed n	Principal Response		Teacher-Librarian Response	
		n	%	n	%
Australia	246	38	15%	40	16%
Canada	252	40	16%	59	23%
Finland	86	40	47%	36	42%
Japan	100	68	68%	68	68%
Scotland	200	44	22%	42	21%
South Korea	141	43	30%	44	31%

Cross-Country Comparisons from Instrument 2 Data

Instrument 2 (see Appendix C) gathered data on the level of principal support for the school library program and the teacher-librarian, using rating scales to access the perceptions and beliefs of principals and teacher-librarians on 31 task statements (Questions 1-31) and 19 belief statements (Questions 32-50).

Overall Mean Scores for Perceptions and Beliefs

In order to get an overall comparison of the data across the countries and to test the correlations between the overall responses of teacher-librarians and principals in those countries, overall mean scores were calculated on each item in Instrument 2 for Present Perceptions, Future Perceptions, and Beliefs for the teacher-librarians and the principals in each country. The overall mean scores were obtained by adding together the means of the questions and statements using the rating scales for Part A: Perception Factors (0=no comment, 1=none, 2=a little, 3=some, 4=a lot), and Part B: Belief Factors (0=no comment, 1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree).

Table 3
Gender of Survey Participants (Percentages)

	Principal		Teacher-Librarian	
	Male	Female	Male	Female
Australia	57	43	0	100
Canada	75	25	12	88
Finland	57	43	8	92
Japan	88	12	18	82
Scotland	86	14	21	79
South Korea	86	14	23	77

Table 4
Age of Survey Participants (Percentages)

	Principal				Teacher-Librarian			
	under 40	40-49	50-59	over 60	under 40	40-49	50-59	over 60
Australia	6	43	51	0	11	51	35	3
Canada	4	17	62	17	14	46	39	1
Finland	0	18	70	12	25	22	50	3
Japan	12	3	85	0	16	57	25	2
Scotland	5	58	37	0	43	43	14	0
South Korea	0	0	29	71	50	43	0	7

The overall mean scores for Present Perceptions suggest that principals in all countries viewed themselves as spending more time or slightly more time on tasks than did the teacher-librarians, and principals and teacher-librarians in all countries but South Korea differed significantly on the amount of time they perceived the principal to spend on tasks. The four main task statements with a significant amount of disagreement were:

- advocating and facilitating the development of an information-literate school community;
- demonstrating support for collaboration among the teacher-librarian and teaching staff;
- ensuring that the teacher-librarian has an appropriate allocation of support staff;
- allocating adequate, flexible time for the teacher-librarian to administer the library.

The overall mean scores for Future Perceptions indicate that principals and teacher-librarians in Australia, Finland, and Scotland were aligned (no significant difference in overall mean scores) in regard to the amount of time they thought the principal should spend on tasks in the future. In Canada, Japan, and South Korea, however, there was a significant difference between the two groups; the principals believed they should spend more time on some of the tasks in the future than did the teacher-librarians. For example, in Canada, principals and teacher-librarians differed significantly regarding how much time they thought the principal should be spending in the future on 23% of the tasks identified in Part A of Instrument 2 (7 out of the possible 31 tasks). South Korea's respondent groups differed significantly on over one third (42%) of the tasks (13 out of the possible 31 tasks), whereas Japan's differed significantly on nearly two thirds (63%) of tasks. The three task statements with a significant amount of disagreement common to Canada, South Korea, and Japan were:

- advocating and facilitating the development of an information-literate school community;

- informing new staff about the importance of collaborating with the teacher-librarian;
- encouraging teachers to incorporate the learning and use of a range of information skills into their teaching programs and to assess process skills as well as content.

For each of these tasks, teacher-librarians thought that their principal could give "a little-some" more attention to these tasks, whereas the principals felt they should give "a lot" more attention to these tasks. This suggests that the teacher-librarians in Canada, South Korea, and Japan had relatively low expectations regarding the information literacy advocacy role of the principal in the school.

The overall mean scores for Beliefs indicate that principals and teacher-librarians in five of the six countries were well aligned in their beliefs about the role of the principal and the teacher-librarian. The exception was Scotland, where school librarians are not qualified teachers. The school librarians and headteachers in Scotland differed significantly in relation to three beliefs. Headteachers in Scotland agreed, but school librarians did not, that the school librarian should have dual qualifications and that cooperative planning and teaching should take place in the library and in the classroom. School librarians in Scotland agreed, but headteachers did not, that the school librarian should be an IT (information technology) leader in the school (Herring, 1998).

Overall Task Priorities for Principals

The co-investigators next looked at the means for each of the items related to tasks that the principals might carry out in support of the development of an information-literate school community (Questions 1-31). Both principals and teacher-librarians rated each of the tasks in terms of the time or attention that the principal was giving the task at present and in terms of the time or attention that the principal should give the task in future.

There was considerable alignment between principals and teacher-librarians in both Canada and Japan. However, this alignment occurred at opposite ends of the attention spectrum. Although there was overall consensus among principals and teacher-librarians in Canada that principals did not need to focus more attention on the majority of tasks (except for two items, Questions 12 and 31), principals and teacher-librarians in Japan agreed that principals did need to spend more time or attention on nearly two thirds of the tasks (20 out of 31 tasks). There was only one task that both respondent groups in Japan agreed did not require further attention: Question 18, which dealt with the principal visiting the school library to observe the work of the teacher-librarian. In both Japan and South Korea, the principals identified a large number of tasks that they felt required more of their attention (i.e., 30 out of 31 tasks were identified by principals in Japan as requiring more attention, whereas South Korean principals identified 28 out of 31). The researchers believe one possible cause of this high level of future attention

might be that the process of completing these survey instruments acted as an awareness-raising exercise for the principal respondents of these countries as to the potential support they could give their teacher-librarian. In Australia, respondent groups were aligned on 68% (21 out of 31) of the tasks; however, 7 of the 10 remaining tasks were identified by the teacher-librarian as requiring more of the principal's attention. This suggests that Australian teacher-librarians have higher expectations of principal support than do Australian principals. Similarly, in Finland, and to a lesser degree in Scotland, teacher-librarians had higher expectations of principal support than the principals.

The five tasks identified most frequently as requiring significantly more principal attention by principals and teacher-librarians (according to highest number of occurrences out of a possible 12) across all six countries included:

- informs new teaching staff about the importance of collaborating with the teacher-librarian (11/12, i.e., 11 out of a possible 12 occurrences);
- encourages the teaching staff to invest time in cooperatively planning and teaching with the teacher-librarian (9/12);
- actively seeks outside school funding possibilities that can be used to supplement the library resource center budget (9/12);
- seeks feedback from staff about their impressions of the quality of library resource center services (9/12);
- works with the teacher-librarian to develop the teacher-librarian's personal professional development plan (8/12).

Top Present and Future Perception Factors

Working from the above summary, the researchers then organized the 31 perception items in rank order from the highest to lowest means for each respondent group to identify those tasks considered of highest priority within and then across countries. The priority tasks for principals identified most frequently by principals and teacher-librarians across the countries were:

- encouraging and facilitating the professional development of staff;
- supporting the development of a resource collection that is current and relevant to the curriculum needs of the school;
- advocating and facilitating the development of an information-literate school community.

It is interesting to note that not one of these three priority items was identified in the top five items identified overall as requiring significantly more principal attention. This suggests that the top-priority items are receiving a significant amount of principal attention now and will continue to receive that attention in the future. On the other hand, the items identified as requiring more attention have not been seen as priorities for the principals, and these items may represent tasks that they or the teacher-librarians had not thought of as ways to support the development of information-literate school communities. For example, Question 12 "The principal informs new staff about the importance of collaborating with the teacher-librarian" was identified by 11 out of 12 of the respondent groups across the countries as a

task requiring significantly more attention by principals in the future. However, this item was not identified in any country's top-priority list. A high number of tasks identified as requiring significantly more attention by principals may indicate a more limited conception of the role of the principal. For the participants in the countries where a high number of tasks were identified as requiring significantly more attention by principals, their participation in this research experience may have had an awareness-raising value.

Overall Beliefs for Principals and Teacher-Librarians

The researchers also looked at the means for each of the belief statements in Part B of Instrument 2 (Questions 32-50). Both principals and teacher-librarians rated each belief statement in terms of their strength of agreement or disagreement regarding principal and teacher-librarian roles and responsibilities in supporting the development of an information-literate school community. The same ranking process used by the co-investigators to identify the top task perception factors was used to identify the highest priority beliefs within and then across countries. The researchers ranked according to their means the 19 belief statements common to both principal and teacher-librarians.

The high-priority beliefs most frequently identified by principals and teacher-librarians across the countries were:

- Internet access should be available through the school library;
- the teacher-librarian should provide a flexible timetable for needs of individuals, groups, and whole classes;
- the teacher-librarian ought to be appointed according to a merit selection process.

It is interesting to note that only South Korea did not rate Internet access in its top beliefs; instead, the principals and teacher-librarians in South Korea showed significant alignment in their top two beliefs, that is, the merit selection process for teacher-librarians and the need for dual qualifications in education and librarianship for the teacher-librarian. In Scotland, by contrast, both school librarians and headteachers strongly agreed that Internet access should be available in the school library (number 1-ranked belief for both parties), but they disagreed on the importance of dual qualifications for school librarians. In fact, the school librarians in Scotland were the only respondent group who did not rank the dual qualification belief in their high-priority belief list. On the other hand, both principals and teacher-librarians in Australia strongly agreed on dual qualifications for teacher-librarians, and they exhibited alignment in viewing the teacher-librarian as a key player in the school's information-literacy programs. As this discussion illustrates, the overall top beliefs may give a sense of the nature of the school library program and the role of the teacher-librarian and principal as key players in that program, but each country has unique educational and political frameworks that influence the beliefs in individual countries.

Cross-Country Comparisons from Instrument 3 Data

Data from Instrument 3 (see Appendix D) were available for analysis from the studies conducted in only five of the seven participating countries. The data from France are not yet available in English, and the Japan study did not include Instrument 3. It also should be borne in mind that not all participants who responded to Instruments 1 and 2 completed Instrument 3, and not all those who completed Instrument 3 responded to all the questions in that instrument. For example, for Canada, themes for each of the open-ended questions from Instrument 3 were derived from the responses of 43-47 of the 59 teacher-librarians and 18-31 of the 40 principals who participated in the study. However, approximately the same proportion (about 75%) of the Canadian teacher-librarian respondents completed the open-ended questions, as did the Canadian principal respondents.

In all five countries, two key strengths of the library were an emphasis on supporting staff and students in teaching and learning and the provision of resources and equipment. In all but South Korea, trained and qualified staff were mentioned frequently as a key strength. In Canada and Finland, the library as an environment that was open, inviting, well-organized, and connected to other libraries was also seen as important.

Funding was one of the challenges in school libraries that was high on the list for all five countries. In some countries, this reflected the low levels of funding to education as a whole; in others, more specific issues were identified, such as low salaries for library staff or competition from IT for a piece of the budget pie. In all but South Korea, IT represented an important challenge in terms of the need for continual upgrading of technology and the demands for staff training and user education. In Canada, Scotland, and Finland, getting support for the library from school administrators and teachers also was seen as a key challenge.

Participants in all five countries mentioned the provision and organization of information and resources as one of the critical functions of teacher-librarians. All but South Korea identified inservicing of staff and cooperative planning and teaching as the other two critical contributions that teacher-librarians made to teaching and learning in schools. Participants in Canada and Australia differed in the emphasis they placed on these two functions: principals in these countries tended to focus on the teacher-librarian's role in professional development, in enabling things to happen, whereas teacher-librarians tended to focus on the front-line responsibilities of planning, teaching, and evaluating learning as equal partners with other teachers. In Scotland and Australia, the role of the teacher-librarian in IT, both IT management and IT user education, was also seen as critical.

When asked about the effect of the library being closed for more than two weeks, participants in all five countries agreed that there would be losses in access to resources and in the teaching of information skills. They suggested

that instructional strategies might become less varied and less student-centered and that teachers might rely more on the textbook approach.

The next question asked about the impact of the teacher-librarian being absent for more than two weeks. Participants in three out of four of the countries (no responses were available from South Korea for this or the next question) agreed that there would be serious declines in the instructional program related to information skills. Most of the participants from Finland suggested that there would be little impact on teaching and learning. In order to ensure access to the library when the teacher-librarian was absent, participants in Canada and Australia reported that efforts would be made in some schools to hire a replacement with at least teacher qualifications, but generally in Scotland and Finland no replacement staff would be provided.

The strongest element in the definition of information literacy was the ability to access information from a variety of sources. This element was common to participants from all five countries. Principals and teacher-librarians in South Korea and Scotland and principals in Australia made special mention of the ability to access information from electronic sources. In all countries but South Korea, there was some recognition of the process approach to information access and use, but only in Australia was a specific process model mentioned with any frequency.

Participants in all five countries acknowledged that teachers' attitudes and beliefs constituted one of the major barriers to the integration of information skills across the curriculum. Time available for teachers and teacher-librarians to work together was seen as a barrier by principals and teacher-librarians in Australia, Scotland, and Finland and by teacher-librarians in Canada. Lack of "top-down support"—limitations in the principal's understanding and leadership and lack of a school information-skills policy or curriculum—was seen as a barrier by teacher-librarians in all but Finland. Educational practices such as compulsory courses with rigid content requirements, university entrance examinations, and government testing programs were seen as barriers by teacher-librarians in South Korea and Canada and by principals in Finland. Funding was seen as a barrier by principals in South Korea, Canada, and Scotland.

The cross-country comparison of responses to the open-ended questions of Instruments 3 reveals some common themes across the challenges and concerns in five very different countries related to the management of school libraries and the development and promotion of information literacy programs. There are thought-provoking ideas here, but the implications need to be read in terms of specific local contexts. For example, teacher-librarians in Australia and Canada might wish to work to enhance their leadership profile in their schools because their principals saw the professional development of teachers as a key contribution that teacher-librarians could make to teaching and learning in schools. Teacher-librarians might wish to increase their efforts to develop and promote a process model of information literacy be-

cause this critical contribution to teaching and learning does not appear to have much visibility in any of the five countries except Australia.

The Synergy of International Research Work

This international study of principal influence and information services in schools has demonstrated the synergy in themes and methods that can occur when researchers from many different countries work together.

Synergy in Themes

The co-investigators' comparative analysis of the data collected in six countries has identified some common themes in the concerns, priorities, and beliefs of principals and teacher-librarians across a diverse range of educational contexts. The sharing of research findings through conferences and publications has fueled the synergy of themes related to the researchers' understanding of the development of information-literate school communities. Some of the members of the IRRG were able to utilize their involvement in the international study to move forward national and local agendas related to school libraries and information literacy. Other members of the IRRG were able to use the contacts they made in the international study to help to move forward initiatives in their countries.

This article was written in the hope that others can benefit in some of the same ways as have members of the IRRG for this study. The following comments from IRRG researchers in the participating countries give a flavor of the impact of the study for them and for their colleagues in terms of new understandings and insights:

[In Korea] the principals believed they spend some time and should spend more time on tasks for an information literate school community in the future.... However, the teacher-librarians respond that their principals have no concern for the role of the teacher-librarian in the instructional program, and their principals do not have interest in seeking collaboration of the teacher-librarian with respect to issues of whole-school information management. Already the facts have been revealed that the principal's understanding and advocating of the school library is very important for the development of an information literate school community. The Korean principals perceived that the attainment of information literacy is part of the school plan; however, their basic understanding of the school library is not sufficient. (Han, 1998, p. 8)

Principals and school librarians should be equal partners in a shared process. The earlier studies ... have shown that principal's support is vital to the well-being and development of the school library. The school librarian should also bear her or his part of the challenge of the educational reform. Above all, the educational policy and the socio-economic factors in each country establish possibilities for school libraries. This research gave some hints for developing Finnish school libraries, whether in collaboration with public libraries or inside schools as the school's learning resource centers. The results of the research may not be valid for a small amount of the participating schools, but they can and

need to be used for the benefit of Finnish learners and teachers. (Niinikangas, 1998, p. 13)

The Australian findings demonstrate that there is a significant affinity between principals and teacher librarians with respect to information literacy issues. This will allow a concentration on those issues that are seen as contentious and will facilitate the development of a short instrument that could be used to generate data on these key issues. (Henri, 1998, p. 6)

The involvement in the international study and the process of cross-country comparisons gave the researchers many opportunities for new insights into local school library situations in all the participating countries. For example, the researcher from Scotland commented that his involvement had

highlighted a number of issues of concern to both school librarians and head-teachers and these include: the perception of the importance of information skills in schools; the need for effective staff training relating to the use of the Internet in schools; the qualifications of school librarians, i.e., should school librarians be qualified both as teachers and as librarians; and the role of the school librarian in curriculum development and the use of resources in the curriculum. (Herring, 1998).

Synergy in Methods

The collaboration between the co-investigators in Australia and Canada began a process of research synergy that has made an international impact. Transferred research ideas were transformed through use in the new setting, and these new understandings became the catalyst for new research ideas and further transformation. For example, the Australian qualitative study was based on the Canadian study, but the Australian researchers reframed the study as an examination of the role of the principal in developing and supporting an information-literate community. They used a different methodology for selection of the study site than had been used in Canada, and they extended the questions used in the Canadian study to examine the support of the principal for the integration of information technology, which enables a school to pursue the goal of information literacy.

The work of the co-investigators in conducting small-scale qualitative studies in Canada and Australia helped to develop a deeper understanding of the complex phenomena involved in implementing successful school library programs. Facilitating change in school programs and transforming school culture are complex endeavors that are frequently unsuccessful. Studying schools that had been successful in these endeavors enabled the co-investigators to explain more clearly, for example, the strategies of successful collaborative educational leaders. However, because of the uniqueness of each study situation and the small number of participants in these kinds of studies, it was impossible to generalize from them about what factors, for example, might explain why these principals were able to lead in these ways. For this, a larger-scale study was needed. The qualitative studies

provided in-depth understanding of a small sample of schools in two countries. Only a quantitative study could test the existence of the factors of influence and support that exist between the principal and the teacher-librarian across a broader range of schools and in a larger number of countries, but the qualitative studies provided the foundation on which the quantitative study could be designed. The richness of the data from the earlier qualitative studies, however, convinced the co-investigators that the international study should include a qualitative aspect to enhance the understanding of the unique context of each of the participating countries and to enhance the trustworthiness of the overall data interpretation.

The success of the international study rested most heavily on the shoulders of the Canadian and Australian co-investigators, as they had primary responsibility for funding, planning, and coordinating the study. The collaborative relationship of these three researchers had been developed over several years of shared work before the study. Their collaborative relationship supported the administration of a complex project and drew on their different strengths in research knowledge and in resource availability. Oberg brought expertise and experience in qualitative research methods, including research design, data collection, data analysis, and reporting of findings. Hay and Henri brought expertise and experience in quantitative research methods and in web-based surveys. All the other members of the IRRG also brought their expertise in school librarianship, in research, and in their local context. To complete the data gathering, most also had to generate funding additional to that provided by the co-investigators from IFLA and IASL sources. All the researchers developed a deeper understanding of research methodologies through the project.

The methodological requirements, such as obtaining consent for the study, in some countries had the effect of increasing awareness of school libraries. For example, in the Finnish report, the researcher reported that the leading principal of the schools in one city wrote in his letter of consent, "These questions seem to reflect a reality totally different from Finland with working possibilities totally different from ours, yet it may be that just the things worth developing became visible in this questionnaire" (Niinikangas, 1998, p. 5).

Looking Forward

The researchers involved in this international study have frequently commented on how their participation in the project was useful in developing a richer understanding of the role of school libraries in their communities and in developing their research expertise. We hope that the sharing of ideas, information, and expertise will extend beyond the researchers in the seven countries. The findings of this study have been disseminated through local and national presentations and publications in all seven countries and through the conferences of two international library associations. Our

forthcoming IFLA Professional Report will include examples of the research instruments, as well as extensive discussions of the findings of the study and of the methodological and other issues involved in conducting an international study. The co-investigators are hopeful that other researchers will be interested in replicating the study so that we and others can continue to benefit from increased understanding of the role of principals in developing information-literate school communities.

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Author Notes

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Appendix A

Australian Principal Instrument 1

To be completed by the School Principal

Demographics

Please enter your school's six-digit Survey Identification Number provided by your Survey Coordinator here:

Please provide the following data, which will provide a basis for understanding your answers to the questionnaire. Tick or provide data as required.

1. Type of school:

- (a) System: government ☐ non-government ☐
- (b) Grade: K-6 ☐ 7-10 ☐ 7-12 ☐ 11-12 ☐ Other _____
- (c) Location: rural ☐ urban ☐

2. Size of school:
- (a) Number of teachers _____
- (b) Number of students _____
- (c) Number of teacher librarians _____
- (Note: if less than one full-time position, please indicate number of days/hours per week)
3. Number of Internet connections in the school:
4. Number of Internet access points (terminals) in the school:
5. Your age:
- 20-29 years ☐ 30-39 years ☐ 40-49 years ☐
- 50-59 years ☐ 60 years and over ☐
6. Gender: Male ☐ Female ☐
7. Your academic qualifications: _____
8. Your number of years of teaching prior to appointment as a principal:
9. Number of years in your current position:
10. Your number of years in Executive positions:
11. Number of teacher librarians you have worked with since becoming a principal:
12. Your membership in professional associations (please name):
- If you have any problems completing this survey please contact your Survey Coordinators James Henri on ph (02) 69332468 or Lyn Hay on ph (02) 69332808 or fax (02) 69332733.*

Appendix B

Australian Teacher Librarian Instrument 1

To be completed by the Teacher Librarian

Demographics

Please enter your school's six-digit Survey Identification Number provided by your Survey Coordinator here:

Please provide the following data, which will provide a basis for understanding your answers to the questionnaire. Tick or provide data as required.

1. Number of Internet connections in the library resource centre:
2. Number of Internet access points (terminals) in the library resource centre:
3. Your age:
- 20-29 years ☐ 30-39 years ☐ 40-49 years ☐
- 50-59 years ☐ 60 years and over ☐
4. Gender: Male ☐ Female ☐
5. Your academic qualifications: _____
6. Your number of years of teaching prior to appointment as a teacher librarian:
7. Number of years in your current position: _____
8. Were you appointed to an advertised position?: Yes ☐ No ☐
9. Are you an Advanced Skilled Teacher (AST)?: Yes ☐ No ☐

10. Number of years served in Executive positions: ____
11. Your membership in professional associations (please name):
12. Do you subscribe to a listserv for teacher librarians?: Yes ☐ No ☐
- If Yes, please name these listservs:
13. Which teacher librarian journals do you read? (please name):

Appendix C

Australian Principal and Teacher-Librarian Instrument 2

A. Perception Factors

Please identify how much attention you give to each item at present using the scale:

A Lot—Some—Little—None—Cannot Comment

Then identify how much attention you would like to give each item in the future again using the scale:

A Lot—Some—Little—None—Cannot Comment

Please circle the value that best describes your level of attention to each of the items below for both the present and future: [Note: The response rating format is shown here only for first question of Principal Instrument 2 Part A. Items in the Teacher-Librarian Instrument 2 Part A were the same as those in Principal Instrument 2 Part A but began with the word "I" was replaced with "The principal."]

1. I advocate and facilitate the development of an information literate school community.

Present:	a lot	some	little	none	cannot comment
Future:	a lot	some	little	none	cannot comment
2. I ensure that the attainment of information literacy is part of the school plan.
3. I encourage and facilitate the professional development of staff.
4. I understand and advocate the role of the teacher librarian (as per ministry/system policies) in the school's instructional program.
5. I demonstrate support for collaboration among the teacher librarian and teaching staff.
6. I ensure that the school library resource centre objectives reflect school goals.
7. I ensure that the teacher librarian has an appropriate allocation of support staff.
8. I allocate adequate, flexible time for the teacher librarian to administer the library resource centre.
9. I encourage the teaching staff to involve themselves in the development of library resource centre policies and programs.
10. I encourage the teaching staff to invest time in cooperatively planning and teaching with the teacher librarian.
11. I encourage and facilitate the professional development of teaching staff to enhance their understanding and use of information technology.
12. I inform new staff about the importance of collaborating with the teacher librarian.
13. I support the development of a resource collection that is current and relevant to the curriculum needs of the school.

14. I encourage staff debate about information policy.
15. I ensure that significant funding is allocated to the library resource centre budget.
16. I actively seek outside school funding possibilities that can be used to supplement the library resource centre budget.
17. I engage in regular and timely communication with the teacher librarian.
18. I visit the library resource centre to observe the work of the teacher librarian.
19. I encourage the teacher librarian to debate and justify current practice.
20. I ask questions of the teacher librarian about teaching and learning.
21. I rely on the teacher librarian to keep me abreast of developments that affect his/her role.
22. I seek advice from the teacher librarian with respect to issues of whole school information management.
23. I encourage the teacher librarian to take risks.
24. I encourage teachers to employ a wide range of information resources in their teaching programs.
25. I encourage the teacher librarian to take a leadership role in the development and maintenance of a school wide information skills continuum.
26. I work with the teacher librarian to develop his/her personal professional development plan.
27. I advocate that the teacher librarian be a member of key school committees to tap into his/her expertise and schoolwide perspective.
28. I encourage teachers to incorporate the learning and use of a range of information skills into their teaching programs and to assess process skills as well as content.
29. I provide time release and funding to the teacher librarian to undertake ongoing professional development.
30. When the teacher librarian is not represented on a key committee I ensure that the needs of the library resource centre are addressed.
31. I seek feedback from staff about their impressions of the quality of library resource centre services.

B. Belief Factors

Please indicate the strength of your belief for each of these items using the scale:

Strongly Agree - Agree - Disagree - Strongly Disagree - Cannot Comment

Please circle the value that best describes your strength of belief for each of the items below: [Note: The response rating format is shown here only for first question of Instrument 2 Part B. Items in the Teacher-Librarian Instrument 2 Part B were the same as those in Principal Instrument 2 Part B except as noted below.]

32. I believe that the teacher librarian should be a key player in the school's information literacy programs.
 I: strongly agree agree disagree strongly disagree cannot comment
33. I believe that a teacher librarian ought to have a qualification in education and librarianship.
34. I believe teacher librarians ought to be appointed according to a merit selection process.

35. Should an unqualified teacher librarian be appointed to my school, I would expect that s/he undertake a specialist qualification in teacher librarianship.
36. I expect the teacher librarian to spend all of his/her day in the library resource centre.
37. I believe that staff development plans should address the development of teachers' information literacy.
38. I believe that the teacher librarian should be timetabled to cover classroom teachers' relief from face-to-face time.
39. I identify the teacher librarian as an information technology (IT) leader in the school.
40. I believe that the teacher librarian should provide a flexible timetable that best meets the needs of individual students, groups, and whole classes.
41. I believe that Internet access should be available through the library resource centre.
42. I believe that students should have individual access to the library resource centre during class time.
43. I believe that the principal should supervise the teacher librarian.
44. I believe that the teacher librarian should provide appropriate inservicing to the teaching staff.
45. I believe it is important that principals act as role models and mentors to staff who are reticent about the appropriate instructional use of information technology.
46. I believe that cooperative planning and teaching should occur in the classroom as well as in the library resource centre.
47. When the teacher librarian is absent, I believe that it is necessary to fill his/her position with a suitably qualified replacement.
48. I believe that teacher librarians should be supported to achieve Advanced Skills Teacher (AST) status and appropriate executive positions.
49. I believe that the Principal is well placed to judge the teacher librarian's professional competence.
50. My acceptance of the teacher librarian's professional judgement relates directly to his/her credibility. [This question was asked only of Principals.]
50. I believe that it is the teacher librarian's responsibility to educate the Principal about the role of the teacher librarian. [This question was asked only of Teacher Librarians.]
51. I believe that the teacher librarian should inform the Principal about issues affecting the potential of library resource centres. [This question was asked only of Teacher Librarians.]
52. I believe that the teacher librarian is good preparation for the position of Principal. [This question was asked only of Teacher Librarians.]
53. Teacher librarians seek mentorship from teaching staff in addition to that provided by the Principal. [This question was asked only of Teacher Librarians.]

Appendix D

Australian Principal and Teacher Librarian Instrument 3

Open-ended Questions

[Note: Questions in the Principal Instrument 3 and the Teacher-Librarian Instrument 3 were the same except as noted below.]

The following questions allow you to provide the researchers with additional information.

1. From my perspective the strengths of the library resource centre are:
2. From my perspective the challenges that face the library resource centre are:
3. The following things that the teacher librarian does are critical to the quality of teaching and learning:
4. If the library resource centre were closed for more than two weeks the form and quality of teaching and learning would be affected in the following ways:
5. If the teacher librarian were absent from school for more than two weeks the form and quality of teaching and learning would be affected in the following ways:
6. When the teacher librarian is absent the following arrangements ensure access to the library resource centre:
7. I see information literacy as:
8. I see the following as the major barriers to the integration of information skills across the curriculum:
9. I promote the role of the library resource centre through school committees in the following ways:
10. I maintain my credibility as a teacher librarian in the following ways: [Note: This question was asked only of Teacher Librarians.]
11. The principal could provide the following additional supports to me as teacher librarian: [Note: This question was asked only of Teacher Librarians.]
12. In conclusion I would like to make the following points about my role in developing and supporting an information literate school community:

Thank you for your participation.

If you have any problems completing this survey please contact your Survey Coordinators

James Henri on ph (02) 69332468 or Lyn Hay on ph (02) 69332808 or fax (02) 69332733.